



May 27, 2010

TO: Conservancy Members

FROM: Sam Schuchat, Executive Officer  
Trish Chapman and Laura Engeman, Project Managers

RE: **San Clemente Dam Removal Project – Project Update**

### **Background**

As discussed in previous memos and staff reports, the Coastal Conservancy has been leading the State's efforts to facilitate removal of San Clemente Dam on the Carmel River in Monterey County. San Clemente Dam is an obsolete structure that no longer serves any function and has been declared seismically unsafe by the Department of Water Resources (DWR). Removing the dam would resolve the public safety issue and provide steelhead trout, a federally-threatened species, with unimpaired access to over 25 miles of spawning and rearing habitat. It would also restore the natural sediment supply to the downstream watershed and beach and would enhance the biological connectivity of the river corridor. A project figure and brief description is provided in Exhibit 1.

San Clemente Dam is owned by California American Water (CAW), a private utility company. CAW is responsible for resolving the dam's safety issue and initially proposed to buttress the dam because that is the least cost alternative that will address the safety concern. Since late 2007, CAW, the Conservancy, and NOAA's National Marine Fisheries Service (NMFS) have been in extended and, at times, difficult negotiations to obtain CAW's agreement to remove the dam rather than buttress it. The basic concept is that CAW would implement the dam removal project, but only at a cost equal to the estimated cost of the buttressing project (\$49 million). The Conservancy and NMFS would secure the additional funding needed (approximately \$35 million) from State, Federal, and foundation sources. In addition, the Conservancy and NMFS would assist CAW in designing, permitting, and managing the project. In May of 2007, the Conservancy approved \$500,000 for feasibility studies and development of a restoration design. In June of 2008, the Conservancy approved up to \$6 million for project design and permitting, \$3 million of which was to be reimbursed by CAW.

In December 2008, the Conservancy was forced to suspend activity on the project design and permitting due to the State's financial crisis. Uncertain about both the resolution of the State's fiscal crisis and the willingness of DWR's Division of Safety of Dams (DSOD) to allow additional delay before San Clemente Dam's deficiencies were addressed, California American Water announced in February 2009 that it was abandoning efforts to remove San Clemente Dam

and intended to buttress the dam. Subsequent efforts led by Congressman Sam Farr and California Natural Resources Secretary Michael Chrisman brought CAW back to the negotiating table in July 2009, and in January 2010 CAW and eleven agencies and elected officials signed a statement (Exhibit 2) agreeing to collaborate on resolving remaining obstacles to implementing the dam removal project. Subsequently, CAW submitted an application to DWR to remove the dam, with DWR's acknowledgement that CAW could return to the buttressing project if the issues involved with the dam removal project could not be resolved by the stakeholders.

## **Current Tasks**

CAW, the Conservancy, and NMFS have formed a Project Team that is working to complete several tasks that will move CAW towards full commitment to the project by November 2010. The ongoing tasks are described in more detail below. Once these tasks are completed, the Project Team will move forward with advancing the project design to 30%, initiating the permit applications, and procuring a design-build firm to construct the project. Project construction is estimated to begin in 2013.

### **1. DSOD Removal Application and Notice of Determination**

The DWR Division of Safety of Dams (DSOD) has accepted CAW's application to remove the dam and approved the project work plan. DSOD needs to complete the CEQA process by issuing a Notice of Determination (NOD). State funding for project construction cannot be approved until the NOD has been issued.

### **2. Risk Management**

Before September 2010, the Project Team will address risk concerns associated with the dam removal project through the following tasks:

- Complete risk assessment of the dam removal project (currently being revised based on comments from peer review)
- Evaluate the risks of the buttressing project (complete by July 1)
- Develop a risk comparison of the buttressing and dam removal projects (complete by July 1).
- Develop a draft long-term management plan (complete)

The draft long-term management plan outlines several strategies for monitoring and potentially managing the project area to minimize long-term risks identified in the risk assessment.

### **3. Funding**

The public portion of the funding for the Reroute and Removal project is estimated to be \$35 million. The Conservancy has committed to securing 75% of this by July 2011 and 100% by July 2012. At this time, approximately \$6.7 million has been approved by State and Federal agencies, and an additional \$14 million has been informally committed. SCC has also submitted applications for an additional \$16 million in grants and in-kind assistance. The

funding plan is detailed in Exhibit 3. Finding a significant source of federal funding for the project remains the biggest funding challenge.

4. Long-term Landowner

A key element to obtaining CAW's commitment to implement the project and address long-term risks is securing a future long-term landowner for the project area. Congressman Farr's office assisted in initiating discussions with the U.S. Bureau of Land Management (BLM) and U.S. Forest Service (USFS) about potential landownership. NMFS and SCC staff outlined the landownership request and project risks to regional BLM staff in March, and received a positive response. The Project Team is working to obtain a letter of intent from BLM by summer 2010, which outlines the conditions of their acceptance of the land transfer.

5. California Public Utilities Commission (CPUC) Approval

CPUC approval is necessary for CAW to meet its commitment to remove the dam. The Project Team has met with staff of the CPUC and the Division of Ratepayer's Advocates to discuss the benefits and unique nature of this project. CAW intends to submit an application formally requesting CPUC approval of the dam removal project by the end of May 2010. CPUC approval is anticipated by November 2010.

### **Anticipated Next Steps**

Conservancy staff anticipates the following steps in the effort to implement the San Clemente Dam Removal Project:

1. **Resumption of design and permitting work.** The Conservancy has resumed limited activities on the design and permitting of the project. It is anticipated that this work will fully resume in September 2010. Design and permitting costs will be shared between the Conservancy and CAW. Funding for these activities was approved by the Conservancy in June 2008.
2. **Conditional Approval of Conservancy Implementation Funding.** Staff anticipates returning to the Conservancy in Fall of 2010 with a recommendation to provide an additional \$4 million for project implementation. This would make the Conservancy's total contribution approximately \$7 million (this does not include earlier project development and feasibility funding). The Conservancy will not need to provide the funding to CAW until July 2012, but in order to obtain CPUC approval of the project, it is critical to show early commitment of a significant portion the public funding for the project.
3. **Secure Project Funding.** Conservancy staff, with the assistance of NMFS, will take the lead in securing the non-CAW sources of funding for the project. The Conservancy intends to serve as a clearinghouse for the non-CAW project funding by accepting grants from multiple agencies and then consolidating them in one grant from the OPC to CAW to complete the project (see #5 below).

4. **Project Updates.** No Conservancy actions are expected between fall of 2010 and spring of 2012, but the Executive Officer will periodically update the Board on project progress during this period.
5. **Conservancy Approval of All Project Funding and Authorization to Enter Project Implementation Agreement.** Staff anticipates that sometime prior to July 2012 it will recommend that the Conservancy Board approve disbursement of all funds received from various entities for project implementation. It is anticipated, that prior to or concurrent with the action, staff will also request authority to enter into an implementation agreement with CAW and NMFS detailing the roles and responsibilities of each entity with respect to implementation of the project.

Exhibit 1

**San Clemente Dam Removal Project**  
**Overview**

*Background*

The Carmel River in Monterey County represents one of the best opportunities for river restoration on California's Central Coast. Since 1921, however, the Carmel River and its wildlife resources have been impacted by San Clemente Dam. The dam is an obsolete structure that no longer serves any purpose and has been declared unsafe by the State's Division of the Safety of Dams. The dam's owner, California American Water (CAW), must take action to address the safety issue. The cheapest option is to simply strengthen the dam in place.

Removing the dam, however, would have multiple public benefits including restoring access to 25 miles of spawning and rearing habitat for steelhead trout, a federally threatened species, restoring the natural sediment supply to the downstream beaches, and providing new recreation opportunities for the public. For this reason, the Coastal Conservancy, NOAA Fisheries, and others have been working with CAW to develop a cooperative strategy for removing the dam rather than buttressing it. The concept, in its simplest form, is that CAW would implement the dam removal project, but only contribute an amount equal to the estimated cost of the buttressing project (\$49 million). The other entities would work together to secure the additional funding needed to remove the dam. In this way, CAW would meet its regulatory responsibilities without undue cost to its ratepayers, while providing the environmental benefits of dam removal.

*Project Description*

With any western dam removal project, the most difficult issue is how to deal with the sediment accumulated behind the dam. It is estimated that there are 2.5 million cubic yards of sediment behind San Clemente Dam. Due to limited and difficult access to the dam site, trucking the sediment out was deemed infeasible. Likewise, allowing the sediment to erode downstream was deemed infeasible because it would likely worsen downstream flooding. There is already a significant flooding issue along the lower Carmel River. Therefore, the project design proposes to re-route a 0.5 mile portion of the Carmel River and use the abandoned reach as a sediment disposal area. This is described in greater detail below and illustrated in Figure 1.

San Clemente dam is located just downstream of the confluence of the Carmel River and San Clemente Creek, and the majority of the accumulated sediment is located along the Carmel River (see Figure 1). Therefore, the proposed project would blast a new channel through the ridge separating the river from the creek, and reroute the Carmel River into the creek approximately one-half mile upstream from the dam. The rock blasted from the reroute channel would be used to create a structure (the "diversion dike") which would force the river into the reroute channel. The abandoned portion of the Carmel River would be used as a sediment disposal site for the accumulated sediment. Sediment would be removed from behind the dam to the abandoned portion of the reservoir over one season by excavation with heavy earthmoving equipment. Approximately 380,000 cubic yards of sediment in the San Clemente Creek arm of the reservoir would be relocated to the Carmel River arm, where the bulk of accumulated sediment already has been deposited. The sediments at the downstream end of the bypassed reservoir arm would be stabilized and protected from erosion. The San Clemente Creek channel would be

Exhibit 1

reconstructed through its historic inundation zone from the exit of the diversion channel to the dam site. Finally, the dam would be removed.

The project is expected to take four to five years to complete (three years of actual construction), including environmental review, permitting, design, infrastructure improvements, sediment removal, bypass channel excavation, diversion dike construction, dam demolition, and creek channel reconstruction.

At the completion of the project, CAW will transfer the project lands (approximately 928 acres) to a public entity or nonprofit organization. This long-term landowner will manage the property for habitat preservation and will provide compatible public access. The Conservancy has discussed long-term landownership with both federal and local entities, and is currently working with BLM to secure a letter of intent to accept the property after project completion.

One option for reducing the costs of dam removal would be to obtain the assistance of the U.S. Department of Defense's Innovative Readiness Training Program (IRT). Through this program, members of the military reserves achieve their training objectives through participation in civilian projects. Civilian partners must pay for equipment and materials, but the military pays for the labor costs. IRT troops could potentially undertake many elements of the dam removal project including construction of roads, pipelines, and the river diversion dike, earthmoving, blasting of the new river channel, and removal of the dam. IRT staff has expressed serious interest in participating in the project. The project team is working on an application for IRT participation in the project.



Exhibit 1

Figure 1: San Clemente Dam Removal Project Area



# San Clemente Dam Removal Project

## Collaboration Statement

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**We, the undersigned, recognize:**

- California American Water owns the San Clemente Dam ("the dam"), located on the Carmel River in Monterey County approximately 18 miles upstream from the mouth of the river in Monterey Bay.
- The Carmel River and the area surrounding the dam constitute valuable watershed area and habitat for many species of plants and animals.
- California American Water and the California Department of Water Resources (DWR) Division of the Safety of Dams (DSOD) have determined the dam is inadequate for seismic stability and flood safety. DSOD is requiring California American Water to alleviate the dam safety hazards.
- In December 2007, DWR completed the San Clemente Dam Seismic Safety Project Final Environmental Impact Report/Environmental Impact Statement ("EIR/EIS"), under the California Environmental Quality Act and the National Environmental Policy Act, analyzing alternatives for addressing the safety issues. Alternatives that meet DSOD safety requirements include Dam Strengthening (buttressing) and the Carmel River Reroute, which includes removal of San Clemente Dam. DWR certified the Final EIR on December 31, 2007.
- The California State Coastal Conservancy has recently funded several studies and has determined that the River Reroute and Dam Removal Project is a feasible alternative.
- The California State Coastal Conservancy, NOAA's National Marine Fisheries Service, the California Department of Fish and Game, and multiple non-governmental organizations believe that removing San Clemente Dam will result in multiple public environmental benefits, including improving access to 25 miles of spawning and rearing habitat for steelhead trout, restoring the ecological connectivity of the river and riparian corridor, and restoring river functions and sediment transport.
- The South-Central California Coast steelhead trout and the California red-legged frog are listed as threatened species under the Federal Endangered Species Act. The Carmel River has been designated critical habitat for both of these species.
- California American Water has determined that implementation of the Reroute and Dam Removal alternative would cost more than the Dam Strengthening alternative.
- California American Water is obligated to resolve the safety risk posed by the dam at the least cost possible to its ratepayers.
- California American Water is amenable to removal of the dam instead of buttressing it, provided the project will satisfy the safety concerns of DSOD in a timely manner and will not unduly burden California American Water's ratepayers and shareholders.
- The California State Coastal Conservancy, NOAA's National Marine Fisheries Service, and California American Water have been working collaboratively since 2007 along with other federal, state, and local organizations to develop a reasonable and prudent solution for San Clemente Dam that would meet the requirements and constraints of the undersigned.
- California American Water has implemented risk reduction measures for the dam's operation as requested by DSOD while California American Water and resource agencies develop a plan.

**In recognition of these facts, we, the undersigned, are committed to:**

Working collaboratively over the next year to develop a project plan by June 2010 for the Carmel River Reroute and San Clemente Dam Removal Project such that it can be compared to the project plan for the San Clemente Dam Strengthening Project with regard to costs and liabilities, and to making a good faith effort between now and November 2010 to find funding sources and a governmental or non-profit entity to take over the dam site before or after Dam Removal.



**HON. SAM FARR**

  
Representative Sam Farr

Member, House of Representatives,  
California 17th District

Date

1-11-'10

**HON. ABEL MALDONADO**

  
Senator Abel Maldonado

California 15th District

Date

1-8-10

**HON. BILL MONNING**

  
Assemblymember Bill Monning

California 27th District

Date

1-07-2010

**HON. DAVE POTTER**

  
Supervisor Dave Potter

Monterey County Board of Supervisors

Date

1-19-2010

**HON. REGINA DOYLE**

  
Chair Regina Doyle

Monterey Peninsula Water Management District

Date

1-19-2010

**SECRETARY MICHAEL CHRISMAN**

  
Secretary Michael Chrisman

California Department of Natural Resources

Date


1/11/10

**COMMISSIONER JOHN BOHN**

  
**Commissioner John Bohn**  
California Public Utilities Commission

1/11/10  
Date

**NOAA'S NATIONAL MARINE FISHERIES SERVICE**

  
**Rodney R. McInnis**  
Southwest Regional Administrator

1-11-10  
Date

**CALIFORNIA DEPARTMENT OF FISH AND GAME**

  
**John McCamman**  
Director

1-11-10  
Date

**CALIFORNIA STATE COASTAL CONSERVANCY**

  
**Samuel Schuchat**  
Executive Officer

1/11/10  
Date

**MONTEREY COUNTY WATER RESOURCES AGENCY**

  
**Curtis Weeks**  
General Manager

1/11/10  
Date

**CALIFORNIA AMERICAN WATER**

  
**Robert MacLean**  
President

1/11/10  
Date

Exhibit 3

**San Clemente Dam Removal Project  
Funding plan**

**Table 1: Project Funding Plan and Funding Gap**

<b>Funding Source</b>	<b>Amount Requested</b>	<b>Estimated Minimum to Receive</b>	<b>Status</b>
<b>CALIFORNIA AMERICAN WATER</b>	<b>\$49,000,000</b>	<b>\$49,000,000</b>	Pending CPUC approval
<b>STATE</b>			
State Coastal Conservancy	\$7,000,000	\$7,000,000	\$3 M approved \$4 M pending
California Department of Fish and Game	\$7,000,000	\$1,000,000	\$7 M under review
Wildlife Conservation Board	\$7,000,000	\$7,000,000	\$7 M pending
California Resources Agency	\$6,000,000	\$3,000,000	\$3 M approved \$3 M under review
<b>SUBTOTAL STATE</b>	<b>\$27,000,000</b>	<b>\$18,000,000</b>	<b>\$6 M approved</b> <b>\$11 M pending final approval</b> <b>\$10 M under review</b>
<b>FEDERAL</b>			
Coastal Impact Assistance Program	\$750,000	\$750,000	Approved
Open Rivers Initiative	\$3,000,000	\$1,000,000	\$500,000 pending \$2,500,000 under review
Innovative Readiness Training Program (in-kind services)	Unspecified	\$0	Under review. Possible \$2-5 million of in-kind services.
<b>SUBTOTAL FEDERAL</b>	<b>\$3,750,000</b>	<b>\$1,750,000</b>	<b>\$750,000 approved</b> <b>\$500,000 pending approval</b> <b>\$8,500,000 under review</b>
<b>GRAND TOTAL:</b>	<b>\$79,750,000</b>	<b>68,750,000</b>	
<b>POTENTIAL FUNDING GAP</b>	<b>\$4,250,000</b>	<b>\$15,250,000</b>	